

0120/0330

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/825,212

DATE: 04/18/2001
 TIME: 07:04:02

Input Set : A:\00032nc1.app
 Output Set: N:\CRF3\04182001\1825212.raw

ENTERED

3 <110> APPLICANT: Benson, Timothy E
 5 <120> TITLE OF INVENTION: CRYSTALLIZATION AND STRUCTURE DETERMINATION OF
 6 STAPHYLOCOCCUS AUREUS THIOREDOXIN REDUCTASE
 8 <130> FILE REFERENCE: 00032.US1
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/825,212
 11 <141> CURRENT FILING DATE: 2001-04-03
 13 <150> PRIOR APPLICATION NUMBER: 60/195,055
 14 <151> PRIOR FILING DATE: 2000-04-06
 16 <160> NUMBER OF SEQ ID NOS: 3
 18 <170> SOFTWARE: PatentIn Ver. 2.1
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 320
 22 <212> TYPE: PRT
 23 <213> ORGANISM: Staphylococcus aureus
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 28 Ala Gly Met Thr Ala Ala Val Tyr Ala Ser Arg Ala Asn Leu Lys Thr
 29 20 25 30
 30 Val Met Ile Glu Arg Gly Ile Pro Gly Gly Gln Met Ala Asn Thr Glu
 31 35 40 45
 32 Glu Val Glu Asn Phe Pro Gly Phe Glu Met Ile Thr Gly Pro Asp Leu
 33 50 55 60
 34 Ser Thr Lys Met Phe Glu His Ala Lys Lys Phe Gly Ala Val Tyr Gln
 35 65 70 75 80
 36 Tyr Gly Asp Ile Lys Ser Val Glu Asp Lys Gly Glu Tyr Lys Val Ile
 37 85 90 95
 38 Asn Phe Gly Asn Lys Glu Leu Thr Ala Lys Ala Val Ile Ile Ala Thr
 39 100 105 110
 40 Gly Ala Glu Tyr Lys Lys Ile Gly Val Pro Gly Glu Gln Glu Leu Gly
 41 115 120 125
 42 Gly Arg Gly Val Ser Tyr Cys Ala Val Cys Asp Gly Ala Phe Phe Lys
 43 130 135 140
 44 Asn Lys Arg Leu Phe Val Ile Gly Gly Gly Asp Ser Ala Val Glu Glu
 45 145 150 155 160
 46 Gly Thr Phe Thr Thr Lys Phe Ala Asp Lys Val Thr Ile Val His Arg
 47 165 170 175
 48 Arg Asp Glu Leu Arg Ala Gln Arg Ile Leu Gln Asp Arg Ala Phe Lys
 49 180 185 190
 50 Asn Asp Lys Ile Asp Phe Ile Trp Ser His Thr Thr Lys Ser Ile Asn
 51 195 200 205
 52 Glu Lys Asp Gly Lys Val Gly Ser Val Thr Leu Thr Ser Thr Lys Asp
 53 210 215 220
 54 Gly Ser Glu Glu Thr His Glu Ala Asp Gly Val Phe Ile Tyr Ile Gly
 55 225 230 235 240
 56 Met Lys Pro Leu Thr Ala Pro Phe Lys Asp Leu Gly Ile Thr Asn Asp
 57 245 250 255

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74 Val Gly Tyr Ile Val Thr Lys Asp Asp Met Thr Thr Ser Val Pro Gly
75          260          265          270
77 Ile Phe Ala Ala Gly Asp Val Arg Asp Lys Gly Leu Arg Gln Ile Val
78          275          280          285
80 Thr Ala Thr Gly Asp Gly Ser Ile Ala Ala Gln Ser Ala Ala Glu Tyr
81          290          295          300
83 Ile Glu His Leu Asn Asp Gln Ala Arg Ser His His His His His
84 305          310          315          320
90 <210> SEQ ID NO: 2
91 <211> LENGTH: 320
92 <212> TYPE: PRT
93 <213> ORGANISM: Escherichia coli
95 <400> SEQUENCE: 2
96 Gly Thr Thr Lys His Ser Lys Leu Leu Ile Leu Gly Ser Gly Pro Ala
97 1          5          10          15
99 Gly Tyr Thr Ala Ala Val Tyr Ala Ala Arg Ala Asn Leu Gln Pro Val
100          20          25          30
102 Leu Ile Thr Gly Met Glu Lys Gly Gly Gln Leu Thr Thr Thr Thr Glu
103          35          40          45
105 Val Glu Asn Trp Pro Gly Asp Pro Asn Asp Leu Thr Gly Pro Leu Leu
106          50          55          60
108 Met Glu Arg Met His Glu His Ala Thr Lys Phe Glu Thr Glu Ile Ile
109 65          70          75          80
111 Phe Asp His Ile Asn Lys Val Asp Leu Gln Asn Arg Pro Phe Arg Leu
112          85          90          95
114 Asn Gly Asp Asn Gly Glu Tyr Thr Cys Asp Ala Leu Ile Ile Ala Thr
115          100          105          110
117 Gly Ala Ser Ala Arg Tyr Leu Gly Leu Pro Ser Glu Glu Ala Phe Lys
118          115          120          125
120 Gly Arg Gly Val Ser Ala Cys Ala Thr Cys Asp Gly Phe Phe Tyr Arg
121          130          135          140
124 Asn Gln Lys Val Ala Val Ile Gly Gly Gly Asn Thr Ala Val Glu Glu
124 145          150          155          160
126 Ala Leu Tyr Leu Ser Asn Ile Ala Ser Glu Val His Leu Ile His Arg
127          165          170          175
129 Arg Asp Gly Phe Arg Ala Glu Lys Ile Leu Ile Lys Arg Leu Met Asp
130          180          185          190
132 Lys Val Glu Asn Gly Asn Ile Ile Leu His Thr Asn Arg Thr Thr Glu
133          195          200          205
135 Glu Val Thr Gly Asp Gln Met Gly Val Thr Gly Val Arg Leu Arg Asp
136          210          215          220
138 Thr Gln Asn Ser Asp Asn Ile Glu Ser Leu Asp Val Ala Gly Leu Phe
139 225          230          235          240
141 Val Ala Ile Gly His Ser Pro Asn Thr Ala Ile Phe Glu Gly Gln Leu
142          245          250          255
144 Glu Leu Glu Asn Gly Tyr Ile Lys Val Gln Ser Gly Ile His Gly Asn
145          260          265          270
147 Ala Thr Gln Thr Ser Ile Pro Gly Val Phe Ala Ala Gly Asp Val Met
148          275          280          285

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150 Asp His Ile Tyr Arg Gln Ala Ile Thr Ser Ala Gly Thr Gly Cys Met
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153 Ala Ala Leu Asp Ala Glu Arg Tyr Leu Asp Gly Leu Ala Asp Ala Lys
154 305                      310                      315                      320
160 <210> SEQ ID NO: 3
161 <211> LENGTH: 333
162 <212> TYPE: PRT
163 <213> ORGANISM: Arabidopsis thaliana
165 <400> SEQUENCE: 3
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167   1      5      10      15
169 Gly Pro Ala Ala His Thr Ala Ala Ile Tyr Ala Ala Arg Ala Glu Leu
170      20      25      30
172 Lys Pro Leu Leu Phe Glu Gly Trp Met Ala Asn Asp Ile Ala Pro Gly
173      35      40      45
175 Gly Gln Leu Thr Thr Thr Thr Asp Val Glu Asn Phe Pro Gly Phe Pro
176      50      55      60
178 Glu Gly Ile Leu Gly Val Glu Leu Thr Asp Lys Phe Arg Lys Gln Ser
179 65      70      75      80
181 Glu Arg Phe Gly Thr Thr Ile Phe Thr Glu Thr Val Thr Lys Val Asp
182      85      90      95
184 Phe Ser Ser Lys Pro Phe Lys Leu Phe Thr Asp Ser Lys Ala Ile Leu
185      100     105     110
187 Ala Asp Ala Val Ile Leu Ala Ile Gly Ala Val Ala Lys Arg Leu Ser
188      115     120     125
190 Phe Val Gly Ser Gly Glu Val Leu Gly Gly Phe Trp Asn Arg Gly Ile
191      130     135     140
193 Ser Ala Cys Ala Val Cys Asp Gly Ala Ala Pro Ile Phe Arg Asn Lys
194 145     150     155     160
196 Pro Leu Ala Val Ile Gly Gly Gly Asp Ser Ala Met Glu Glu Ala Asn
197      165     170     175
199 Phe Leu Thr Lys Tyr Gly Ser Lys Val Tyr Ile Ile His Arg Arg Asp
200      180     185     190
202 Ala Phe Arg Ala Ser Lys Ile Met Gln Gln Arg Ala Leu Ser Asn Pro
203      195     200     205
205 Lys Ile Asp Val Ile Trp Asn Ser Ser Val Val Glu Ala Tyr Gly Asp
206      210     215     220
208 Gly Glu Arg Asp Val Leu Gly Gly Leu Lys Val Lys Asn Val Val Thr
209 225     230     235     240
211 Gly Asp Val Ser Asp Leu Lys Val Ser Gly Leu Phe Phe Ala Ile Gly
212      245     250     255
214 His Glu Pro Ala Thr Lys Phe Leu Asp Gly Gly Val Glu Leu Asp Ser
215      260     265     270
217 Asp Gly Tyr Val Val Thr Lys Pro Gly Thr Thr Gln Thr Ser Val Pro
218      275     280     285
220 Gly Val Phe Ala Ala Gly Asp Val Gln Asp Lys Lys Tyr Arg Gln Ala
221      290     295     300
223 Ile Thr Ala Ala Gly Thr Gly Cys Met Ala Ala Leu Asp Ala Glu His
224 305     310     315     320

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226 Tyr Leu Gln Glu Ile Gly Ser Gln Glu Gly Lys Ser Asp
227 325 330

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/825,212

DATE: 04/18/2001

TIME: 07:04:03

Input Set : A:\00032nc1.app

Output Set: N:\CRF3\04182001\I825212.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number